

Abstract

[0032] A propeller shaft assembly includes a thin-walled tubular member, a connecting member fixed to each end of the tubular member, and a support member fixed within the tubular member. The support member includes a plurality of radial elements extending a first length (L1) within the tubular member and engaging an interior surface of the tubular member to increase the bending frequency of the propeller shaft assembly. In one example, the support member includes a central hub coaxially located within the tubular member and the radial elements extend from the central hub to the interior surface of the tubular member. The radial elements can include enlarged end portions for engaging the interior surface of the tubular member. The radial elements, at their ends, can also include either axial or circumferential grooves which act as an adhesive reservoir.